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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/651,918

Applicant(s)

GIRISH ET AL.

Examiner

Samir Termanini

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21, 24-44, 46-49 and 53-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 24-44, 46-49 and 53-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/10/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

BACKGROUND

1. This Final Office Action is responsive to the following communications:
Applicant Arguments/Remarks Made in an Amendment filed on 9/10/2008.

2. Claims 1-21, 24-44, 46-49 and 53-55 are pending. Claims 1, 12, 21, 32, 44, and 49 are independent in form.

INFORMATION DISCLOSURE STATEMENT

3. The information disclosure statement (IDS) filed on 9/10/2008, 4/17/2008, 5/7/2007, 1/25/05, 12/21/05 and 1/16/04 have been acknowledged and considered by the examiner. The initial copy of form PTO-1449 (filed on 9/10/2008) is included in this office action.

RESPONSE TO AMENDMENT

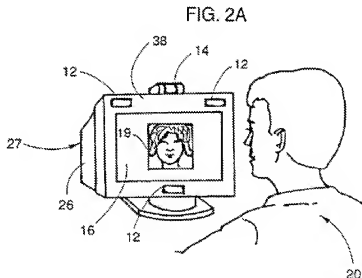
4. Arguments concerning the Examiner's rejections of claims 1-14, **16-21, 32, 34-37, 42-44, 47-49, and 53-55** under 35 U.S.C. 103(a) as being unpatentable over US Pat No. 6,275,258 B1 to *Chim* in view of Alexander et al. (2002/0044201) made in the previous Office Action have been fully considered but they are not persuasive. For the reasons detailed below, these rejections are being maintained.

CLAIM REJECTIONS-35 U.S.C. § 103

5. Claims 1-14, 16-21, 32, 34-37, 42-44, 47-49, and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No. 6,275,258 B1 to *Chim* in view of Alexander et al. (2002/0044201).

I. General Discussion of the Applied Prior Art.

Chim teaches a video camera tracking system that continuously tracks sound emitting objects. A sound activation feature of the system enables a video camera to track objects. *Chim's* video camera is taught to be well suited for videophone applications. The tracking system includes microphones for directing the camera. *Chim* also teaches that the camera focuses within a field of view without mechanically repositioning the camera. For clarity, the Examiner is reproducing Fig. 2A below:



II. Prior Art Anticipation of Claimed Limitations.

As to independent **claim 1**, *Chim* describes: An electronic device ("computing device, such as a computer." col. 3, lines 66-67), comprising: a processor for executing an operating system program and a media content presentation program ("CPU 34" col. 8, line 6); a media content pickup device operatively connected to the processor ("camera 14" col. 7, line 19), the media content pickup device arranged to capture media content input ("camera tracking system enables a video camera to track each speaking participant of the conference " col. 9, lines 5-6), and the media content pickup device arranged to automatically focus on a user-specified region of interest without moving the media content pickup device ("The wide field of view enables scaling and cropping of an image captured by the camera without the need to mechanically reposition the camera for framing a speaker, or a portion of the speaker such as their face. Therefore, the invented System is particularly well suited for such applications as teleconferencing. " col. 4, lines 16-24); and a media output path to receive and to carry, the focused media content input ("image display means, such as a screen 16, " col. 6, lines 1-5).

Chim arguably does not clearly show an auto-focus mechanism of said media content pickup device arranged to automatically focus on said user-specified region of interest in response to a focus command.

Alexander et al. is cited for teaching an auto-focus mechanism of said media content pickup device ("...video camera ...," para. [0057]) arranged to automatically focus on said user-specified region of interest ("...camera drive interface 210 communicatively coupled as depicted....," para. [0029]) in response to a focus command

using position coordinates that identify said user-specified region of interest; ("to automatically adjust the field of focus and focal length of a remote video camera of a remote video conferencing station (e.g., video conferencing station 104) by "selecting" an object displayed within a video conference window displayed on a local video display unit with a user input device., " para. [0021])

It would have been obvious to one of ordinary skill at the time of applicants invention to use the automatic focus of Alexander et al. with *Chim* because, in the same field of endeavor, Alexander et al. suggest the desirability of *Chims's* device:

In response, manufacturers of video conferencing system have introduced automated video camera control systems which obviate the need for manual control by conference participants. Many of these automated video camera control systems rely on a network of distributed microphones to locate a speaking conference participant within a room, and an "auto-focus" camera system to ensure the clarity of the picture.

(para. [0007]).

As to dependent **claims 2-5, and 7**, which ultimately depend from claim 1, *Chim* further discloses: the user-specified region of interest is specified by a user through interaction with a graphical user interface (see Fig 2A); the graphical user interface is provided by the media content presentation program that is executed by the processor:

the CPU 34, continuously process the data transmitted by the microphones 12 for continuously directing the camera 14 toward the speaker 20, so that the speaker's image 19 is substantially continuously optimally framed in the camera's field of view.

(col. 7, lines 31-36); the media output path carries the focused media content input to be provided to a media output device ("screen 16" col. 6, lines 1-5); the media output device being part of the electronic device or separate from the electronic device ("computer

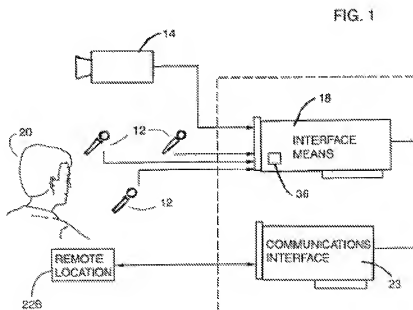
monitor or other suitable screen, at their remote location" col. 4, lines 13-14); the graphical user interface includes at least a media content display window (see Fig. 2A); and the media output device is a monitor ("computer monitor," col. 4, lines 13-14). Thus, the combination of *Chim* and *Alexander et al.* meet the claimed limitations for the same reasons set forth in the discussion of claim 1 above.

As to dependent **claim 6**, which depends from claim 5, *Chim* further discloses: An electronic device as recited in claim 5, wherein the user-specified region of interest is specified by the user with reference to the media content display window ("The scaling and cropping of the image 19 intelligently frames the image 19 of the speaker 20 for transmission of the image 19 without the need to mechanically reposition the camera 14 to frame the speaker 20, or a portion of them, such as their face, as shown in FIGS. 2A and 2B. Thus, the speaker's image 19 is typically well positioned in the field of view for transmission of the image 19 to the remote locations 22." col. 6, lines 37-44). Thus, the combination of *Chim* and *Alexander et al.* meet the claimed limitations for the same reasons set forth in the discussion of claim 1 above.

As to dependent **claim 8**, which depends from claim 4, *Chim* further discloses: An electronic device as recited in claim 4, wherein the media output device is at least one speaker ("In input-output block 54, the speaker's image 19 and voice, or other sounds, are simultaneously transmitted to remote locations 22 via the communications interface 23," col. 8, lines 46-49). Thus, the combination of *Chim* and *Alexander et al.* meet the claimed limitations for the same reasons set forth in the discussion of claim 1 above.

As to dependent **claim 9**, which depends from claim 1, *Chim* further discloses: An electronic device as recited in claim 1, wherein the media content input is at least one of audio content or video content ("video signals representative of a speaker's image 19 in the camera's field of view are input into the interface card for processing," col. 8, lines 23-25). Thus, the combination of *Chim* and *Alexander et al.* meet the claimed limitations for the same reasons set forth in the discussion of claim 1 above.

As to dependent **claim 10**, which depends from claim 1, *Chim* further discloses: in Fig. 1, that the media content pickup device is at least one of a camera and a plurality of microphones:



As to dependent **claim 11**, which depends from claim 1, *Chim* further discloses: an electronic device as recited in claim 1, wherein the electronic device is a computer ("computer system 30" col. 7, line 21).

As to independent **claim 12**, *Chim* describe(s): a computer system, comprising: a processor for executing a video application program ("In a computer system application for example ," col. 7, lines 54-65); a camera operatively connected to said processor, said camera arranged to capture video input in accordance with its field of view ("camera tracking system enables a video camera to track each speaking participant of the conference " col. 9, lines 5-6), and said camera arranged to automatically focus on a determined region of the field of view without moving the camera ("The wide field of view enables scaling and cropping of an image captured by the camera without the need to mechanically reposition the camera for framing a speaker, or a portion of the speaker such as their face." col. 4, lines 16-24), the determined region being determined in accordance with a user input ("for determining movement of a sound emitting object relative to the microphones 12,," col. 7, lines 54-65);, a data output means operatively connected to said processor, said data output means operating to provide the focused video input for display ("the CPU 34, continuously process the data transmitted by the microphones 12 for continuously directing the camera 14 toward the speaker 20," col. 7, lines 31-36) .

Chim arguably does not clearly show an auto-focus mechanism of said media content pickup device arranged to automatically focus on said user-specified region of interest in response to a focus command using position coordinates that identify said determined region of the field of view.

Alexander et al. is cited for teaching an auto-focus mechanism of said media content pickup device ("...video camera ..., " para. [0057]) arranged to automatically

focus on said user-specified region of interest ("...camera drive interface 210 communicatively coupled as depicted....," para. [0029]) in response to a focus command using position coordinates that identify said determined region of the field of view; ("to automatically adjust the field of focus and focal length of a remote video camera of a remote video conferencing station (e.g., video conferencing station 104) by "selecting" an object displayed within a video conference window displayed on a local video display unit with a user input device.," para. [0021])

It would have been obvious to one of ordinary skill at the time of applicants invention to use the automatic focus of Alexander et al. with Chim because, in the same field of endeavor, Alexander et al. suggest the desirability of Chims's device:

In response, manufacturers of video conferencing system have introduced automated video camera control systems which obviate the need for manual control by conference participants. Many of these automated video camera control systems rely on a network of distributed microphones to locate a speaking conference participant within a room, and an "auto-focus" camera system to ensure the clarity of the picture.

(para. [0007]).

As to dependent **claim 13**, which depends from claim 12, *Chim* further disclose(s): a computer system as recited in claim 12, wherein said processor receives a user input that indicates the determined region of the field of view ("the CPU 34, continuously process the data transmitted by the microphones 12 for continuously directing the camera 14 toward the speaker 20, so that the speaker's image 19 is substantially continuously optimally framed in the camera's field of view." col. 7, lines 31-36).

As to dependent **claim 14**, which depends from claim 13, *Chim* further disclose(s): a computer system as recited in claim 13, wherein the user input is with respect to a window displayed on said display.

As to dependent **claim 15**, which depends from claim 14, *Chim* further disclose(s): a computer system as recited in claim 14, wherein the user input is a user selection of a region of the window (see Fig 2A).

As to dependent **claim 16**, which depends from claim 12, *Chim* further disclose(s): a computer system as recited in claim 12, further comprising: at least one microphone for sound pickup ("Therefore, the microphones 12 are positioned at the remote location 22 at fixed spatial positions that are known 55 to the interface card 18, for determining movement of a sound emitting object relative to the microphones 12." col. 7, lines 54-65)..

As to dependent **claim 17**, which depends from claim 16, *Chim* further discloses: a computer system as recited in claim 16, wherein the video application program is an audio-video application ("computer system application for example" col. 7, lines 55-60), and wherein the processor receives the sound pickup from the at least one microphone and supplies audio output to a speaker ("emitted from a sound emitting object, such as the speaker 20, or speakers, to the interface card 18 for processing by the card and CPU 34,." col. 8, lines 4-6; see also "in combination with the CPU 34, continuously process the data transmitted by the microphones 12 for continuously directing the camera 14 toward the speaker 20, so that the speaker's image 19 is substantially continuously optimally framed in the camera's field of view." col. 7, lines 30-36).

As to dependent **claim 18**, which depends from claim 17, *Chim* further discloses: a computer system as recited in claim 17, wherein the speaker is coupled to and associated with the computer system ("speakers, to the interface card 18 for processing by the card and CPU 34. " col. 8, lines 5-6).

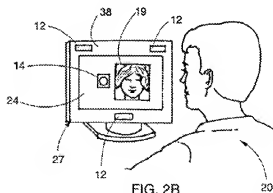
As to dependent **claim 19**, which depends from claim 12, *Chim* further discloses: a computer system as recited in claim 12, further comprising: a plurality of microphones for sound pickup and having a known positional relationship to one another ("The microphones 12 may be located at any 60 suitable position at the remote location so long as each microphone's coordinates are known to the interface card 18. " col. 7, lines 60-64), wherein the microphones are integral with the camera ("when the camera tracking system 10 is integrated into the computer system 30, " col. 7, lines 20-21).

As to dependent **claim 20**, which depends from claim 19, *Chim* further discloses: a computer system as recited in claim 19, wherein the processor receives audio input from each of the microphones and processes the audio input to emphasize audio sound from the determined region that has been determined in accordance with the user input:

camera subject tracking function and method therefor, the disclosed camera is provided with a light measurement unit which measures light by dividing the subject field into multiple regions and outputs multiple light measurement data relating the brightness of the subject field. A subject tracking unit tracks the subject by detecting the movement of the subject using the output from the light measurement unit and a focal point detecting unit that includes multiple focal point detection regions within the subject field and detects the status of the focal point adjustment unit if the focal point of a photographic lens is manually adjusted. In use, if the focal point of the photographic lens is adjusted by the subject tracking unit and at least one of the multiple focal point detection regions is in focus, the subject tracking unit tracks the subject position in the focal point detection region that is in focus as the new subject.

(col. 2, lines 35-51).

As to independent claim 21, Chim further describes: receiving video input from the camera and displaying the video input in a video viewing window of a monitor receiving an identification of a focus region that has an specified by a user by selecting an area of the video viewing window sending a focus command to an auto-focus mechanism of said camera; sending position coordinates identifying said focus region to said auto-focus mechanism:



See element 19 of Fig. 2B, the camera to focuses on the focus region without moving the camera ("without the need to mechanically reposition the camera" col. 6, lines 39-40).

Chim does not clearly show an auto-focus mechanism of said media content pickup device arranged to automatically focus on said user-specified region of interest in response to a focus command.

Alexander et al. is cited for teaching an auto-focus mechanism of said media content pickup device ("...video camera ...," para. [0057]) arranged to automatically focus on said user-specified region of interest ("...camera drive interface 210 communicatively coupled as depicted....," para. [0029]) in response to a focus command ("to automatically adjust the field of focus and focal length of a remote video camera of a remote video conferencing station (e.g., video conferencing station 104) by "selecting" an object displayed within a video conference window displayed on a local video display unit with a user input device.," para. [0021])

It would have been obvious to one of ordinary skill at the time of applicants invention to use the automatic focus of Alexander et al. with Chim because, in the same field of endeavor, Alexander et al. suggest the desirability of Chims's device:

In response, manufacturers of video conferencing system have introduced automated video camera control systems which obviate the need for manual control by conference participants. Many of these automated video camera control systems rely on a network of distributed microphones to locate a speaking conference participant within a room, and an "auto-focus" camera system to ensure the clarity of the picture.

(para. [0007]).

As to dependent **claims 30 and 42**, which depend from claims 21 and 32 respectively, *Chim* further discloses: that the receiving of the video input is supplied from a first computing apparatus to a second computing apparatus and the displaying of the video input and the receiving of the focus region are performed on the second computing apparatus:

The camera tracking system 10 of the present invention is designed for applications that comprise the substantially simultaneous transmission of audio and visual signals between two or more remote locations for communication between the two locations. The invented tracking system 10 is well suited for such applications as teleconferencing, video teleconferencing, video-conferencing, and particularly well suited for video-phone as will become apparent from the ensuing description.

(col. 5, lines 50-60).

As to dependent **claim 31**, which depends from claim 21, *Chim* further discloses: a method as recited in claim 21, wherein the computing apparatus is a computer ("computing device, such as a computer." col. 3, lines 66-67).

As to independent **claim 32**, *Chim* describe(s): a method for using a computing apparatus to process audio input provided by a plurality of microphones ("microphones 12," col. 7, lines 31-36), said method comprising: receiving audio input from the plurality of microphones; receiving an indication of position coordinates of a region of interest from a user with respect to a graphical user interface window being displayed on a monitor ("computer monitor," col. 4, lines 13-14) available to the user sending a focus command to an auto-focus mechanism of said camera; sending position coordinates identifying said focus region to said auto-focus

mechanism (see Fig. 2B); and DSP processing the audio input to focus the audio input towards the region of interest ("the CPU 34, continuously process the data transmitted by the stationary microphones 12 for continuously directing the camera 14 toward the speaker 20," col. 7, lines 31-36).

As to dependent **claim 33**, which depends from claim 32, *Chim* further disclose(s): a method as recited in claim 32, wherein said method further comprises: outputting the processed audio input to at least one speaker ("the speaker's image 19 and voice, or other sounds, are simultaneously transmitted to remote locations 22 via the communications interface 23," col. 8, lines 46-49).

As to dependent **claim 34**, which depends from claim 33, *Chim* further disclose(s): a method as recited in claim 33, wherein said method further comprises: repeating the foregoing operations after said outputting has output the processed audio input to the at least one speaker ("continuously," col. 7, lines 31-36).

As to dependent **claim 35**, which depends from claim 32, *Chmi* further disclose(s): a method as recited in claim 32, wherein said processing captures audio from the region of interest while attempting to reject audio from other regions ("The interface card 18 may also include filter circuitry to additionally help with tracking the particular speaker 20 in the presence of ambient noise in order to facilitate the sensing and tracking of a particular voice.," col. 8, lines 14-20).

As to dependent **claim 36**, which depends from claim 32, *Chmi* further disclose(s): a method as recited in claim 32, wherein said processing utilizes beam

forming and beam steering operations ("In use, if the focal point of the photographic leans is adjusted by the subject tracking unit and at least one of the multiple focal point detection regions is in focus, the subject tracking unit tracks the subject position in the focal point detection region that is in focus as the new subject." col. 2, lines 35-51).

As to dependent **claim 37**, which depends from claim 32, *Chmi* further disclose(s): a method as recited in claim 32, wherein a camera couples to the computing apparatus, and wherein the camera has a housing and the microphones are internal to the housing of the camera ("a microphone 12 may be retained in a face 38 of the housing 26 on either side of the screen 24." col. 7, lines 54-65).

As to **claims 43-44**, *Chim* further taught a second computer system ("computer," col. 4, lines 13-14), like the first automatically focusing computer, networked:

The camera tracking system 10 of the present invention is designed for applications that comprise the substantially simultaneous transmission of audio and visual signals between two or more remote locations for communication between the two locations. The invented tracking system 10 is well suited for such applications as teleconferencing, video teleconferencing, video-conferencing, and particularly well suited for video-phone as will become apparent from the ensuing description.

(col. 5, lines 50-60). The graphical user interface window was show in Fig 2B, above.

As to dependent **claim 47**, which depends from claim 44, *Chim* further discloses: a video conferencing system as recited in claim 44, wherein both first and second computer systems have a plurality of microphones and speakers the audio input from each is provided to the other through a network for automatically focusing:

Therefore, the microphones 12 are positioned at the remote location 22 at fixed spatial positions that are known 55 to the interface card 18, for determining movement of a sound emitting object relative to the microphones 12. In a computer system application for example, a microphone 12 may be retained in a face 38 of the housing 26 on either side of the screen 24. The microphones 12 may be located at any 60 suitable position at the remote location so long as each microphone's coordinates are known to the interface card 18.

(col. 7, lines 54-65). Note further:

the CPU 34, continuously process the data transmitted by the microphones 12 for continuously directing the camera 14 toward the speaker 20, so that the speaker's image 19 is substantially continuously optimally framed in the camera's field of view.

(col. 7, lines 31-36)

As to dependent **claim 48**, which depends from claim 44, *Chim* further discloses: a video conferencing system as recited in claim 44, wherein the first plurality of microphones are internal to a housing of the first camera ("Camera 14" col. 7, lines 12-17), and wherein the second plurality of microphones are internal to a housing of the second camera ("When the system 10 is substantially integrated into a personal computer 30, the Camera 14 may be integrated into the monitor 27 as discussed above. The microphones 12 additionally may be installed in the monitor 27 in this embodiment." col. 7, lines 12-17).

As to **claims 49 and 53-55**, these Claims differ only in that they are directed to products defined by the processes of previous recited Claims. Accordingly, claims 49-55 and 53-55 are rejected for the same reasons set forth in the treatment of previous claims.

camera subject tracking function and method therefor, the disclosed camera is provided with a light measurement unit which measures light by dividing the subject field into multiple regions and outputs multiple light measurement data relating the brightness of the subject field. A subject tracking unit tracks the subject by detecting the movement of the subject using the output from the light measurement unit and a focal point detecting unit that includes multiple focal point detection regions within the subject field and detects the status of the focal point adjustment unit if the focal point of a photographic lens is manually adjusted. In use, if the focal point of the photographic lens is adjusted by the subject tracking unit and at least one of the multiple focal point detection regions is in focus, the subject tracking unit tracks the subject position in the focal point detection region that is in focus as the new subject.

(col. 2, lines 35-51).

6. Claims **24-25, 38-41, and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U.S. Pat. No. 6,275,258 B1 to *Chim*, in view of U.S. Pat. No. 5,589,878 A to *Cortjens et al.* (hereinafter *Cortjens*).

As to closely related **claims 24-29, and 38-41**, *Chim* discloses each and every element of the method set forth in claims 21, 30, 32 and 44, addressed *supra*.

Chim differs from claims 24-29, 38-41, in several regards. First, *Chim* does not specifically teach that the user moves a cursor or position reference image. Second, *Chim* is silent as to the user moving the pointing device to an area of interest then selecting the focus region. Third, *Chim* does not teach that the focus region is selected by clicking on the area of interest. Fourth, *Chim* fails to disclose that user clicks a button on the pointing device. Finally, *Chim* is silent as to the point device being a mouse.

On the other hand, *Cortjens* teaches a user moving a cursor or position reference image ("pointer" col. 17, line 13) over the video viewing window using a pointing device to an area of interest ("area of interest " col. 17, line 16) then selects the focus region by

clicking on the area of interest ("depress and hold...mouse button" col. 17, lines 14-16)
on a mouse:

the user will simply use the mouse 12 to place the pointer at the desired pointer starting point (PSP), depress and hold a predetermined mouse button, such as the left button 12A, and drag the pointer across the area of interest, which causes a rectangular box to begin spreading across the screen, with one corner at the PSP. When the user reaches the desired ending point, the pointer ending point PEP), the user will release the mouse button. The user has thereby drawn a rectangle around the area of interest and released the mouse button. Controller 10 will then determine the appropriate pan and tilt for a camera and cause the camera to center its field of view on the center of the rectangle (CR), then cause the camera to zoom in so that rectangle 128 fills, as fully as possible, screen 125, and also cause the camera to refocus, if necessary.

(col. 17, lines 12-27).

It would have been obvious to one ordinary skill in the relevant field at the time the invention was made to use the mouse selection technique taught in *Cortjens*, with the system and method of *Chim* because it is expressly taught as advantageously suitable for selecting focus regions in a video feed:

the user will simply use the mouse 12 to place the pointer at the desired pointer starting point (PSP), depress and hold a predetermined mouse button, such as the left button 12A, and drag the pointer across the area of interest, which causes a rectangular box to begin spreading across the screen [and release] the mouse button. Controller 10 will then determine the appropriate pan and tilt for a camera and cause the camera to center its field of view on the center of the rectangle (CR), then cause the camera to zoom in so that rectangle 128 fills, as fully as possible, 25 screen 125, and also cause the camera to refocus, if necessary.

(col. 17, lines 9-27). Furthermore, *Cortjens* states that it is well known in the computer field to use a mouse for precisely this technique:

the simple tasks of positioning the pointer in one corner of the 30 desired scene, depressing a mouse button, dragging the mouse to draw a rectangle, and releasing the mouse button, the user has caused the

selected picture area to be expanded to fill the display 125. The use of point, click, drag, and release techniques to draw a box, such as box 128, are, in general, well known in the personal computer field.

(col. 17, lines 29-36)(emphasis added). From reading *Cortjens* and *chim* each step of claims 24-29 perform as one of ordinary skill in the art would have expected them to perform¹. The steps claimed in combination do no more than what one would expect if the steps described in *Chim* and *Cortjens* were preformed separately. In that regard, the results of using the mouse as taught in *Cortjens* was predictable². This especially significant in view of the fact that *Cortjens's* mouse is used in the same way applicant is claiming:

cause the camera to center its field of view on the center of the rectangle (CR), then cause the camera to zoom in so that rectangle 128 fills, as fully as possible, 25 screen 125, and also cause the camera to refocus, if necessary.

(col. 17, lines 9-27).

56. An electronic device as recited in claim 1 wherein said auto-focus mechanism is arranged to automatically focus using position coordinates that identify said user-specified region of interest. ("one of the multiple focal point detection regions is in focus, the subject tracking unit tracks the subject position in the focal point detection region that is in focus as the new subject., "col. 2, lines 35-51).

¹ "[I]n *Sakraida v. AG Pro, Inc.*, [t]he Court derived from the precedents the conclusion that when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious." *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d at 1395-96 (internal quotation omitted).

² "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1739, 82 USPQ2d 1385, 1395 (2007).

As to claim 57, A computer system as recited in claim 12 wherein said auto-focus mechanism is arranged to automatically focus using position coordinates that identify said determined region of the field of view. ("image analysis circuit 206 analyzes each of the pixels within a subset region (i.e., a test region) of the image to quantify the difference between pixels in the test region,," para. [0035])

...Given the x,y coordinates corresponding to the cursor, image analysis circuit 206 analyzes the image stored in capture buffer 209 at and around the x,y coordinates to identify an object within the video conference window corresponding to the ascertained position of the cursor. In one embodiment of the present invention, image analysis circuit 206 analyzes the pixels comprising the image displayed within the video conference window of the video display unit around the x,y coordinates corresponding to the determined cursor position. That is, image analysis circuit 206 analyzes each of the pixels within a subset region (i.e., a test region) of the image to quantify the difference between pixels in the test region. As described herein, pixel disparity any of a number of alternative approaches to measuring the dissimilarity between individual pixels within an image.

As to claims 58-61, *Chim* taught a method, system and apparatus further comprising: sending position coordinates identifying said focus region to said auto-focus mechanism ("In input-output block 54, the speaker's image 19 and voice, or other sounds, are simultaneously transmitted to remote locations 22 via the communications interface 23," col. 8, lines 46-49). further discloses a using position coordinates identifying said region of interest to target the audio input towards the region of interest.

RESPONSE TO ARGUMENTS

7. Applicant arguments, see pp. 14-16 filed 9/10/2008, with respect to the 35 U.S.C. §103(a) Rejections cited by the Examiner in the previous Office Action (dated 6/11/2008), have been considered but they are not persuasive.

Applicants argue:

The other independent claims (12, 21, 32, 44 and 49) also similarly require that the camera, microphone or media content capturing device does not move. In other words, automatic focusing on a user-specified region occurs without requiring the camera to move. By contrast, the cited references both require that their cameras move before any focusing occurs. Page 4 of the Office action again cites Chim for the proposition that the media content pickup device automatically focuses without moving the device, and again refers to "scaling and cropping" as being the equivalent of automatic focusing.

The Examiner disagrees. First, to the contrary of Applicant's contention, Applicant's Specification (see para [0012] of Pre-grant Publication) explains that scaling and cropping is equivalent to automatically focusing on a particular region of an image without moving a camera:

As a method for altering a focus location for a camera using a computing apparatus having a monitor, one embodiment of the invention includes at least the acts of: receiving video input from the camera; displaying the video input on the monitor; receiving a focus region from a user; and causing the camera to focus on the focus region.

Chim taught:

Additionally, the camera used in the present invention is preferably configured to provide a wide field of view. The wide field of view enables scaling and cropping of an image captured by the camera ~~without the need to mechanically reposition the camera for framing a speaker~~, or a portion of the speaker such as their face. Therefore, the invented system is particularly well suited for such applications as teleconferencing.

(see col. 4, lines 15-24). Therefore, *Chim*, without the need to mechanically reposition the camera for framing a speaker, uses scaling and cropping to automatically focus on a particular region of an image without moving a camera.

The remainder of applicants arguments are directed solely to this issue.

CONCLUSION

8. All prior art made of record in this Office Action or as cited on form PTO-892 notwithstanding being relied upon, is considered pertinent to applicant's disclosure. Therefore, Applicant is required under 37 CFR §1.111(c) to consider these references fully when responding to this Office Action.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samir Termanini at telephone number is (571) 270-1047. The Examiner can normally be reached from 9 A.M. to 6 P.M., Monday through Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samir Termanini/
Examiner, Art Unit 2178

/Stephen S. Hong/
Supervisory Patent Examiner, Art Unit 2178